

CLAIMS

1. Terminal end-piece (7) for a fuel assembly (1) of a nuclear reactor, the assembly (1) comprising fuel rods (3) and a skeleton (5) for supporting the fuel rods (3), the fuel rods (3) extending in a longitudinal direction (A) and being arranged at the nodes of a substantially regular network, the support skeleton (5) comprising two terminal end-pieces (7, 9) and elements (11) for connecting the terminal end-pieces, the fuel rods (3) being arranged longitudinally between the terminal end-pieces (7, 9), characterised in that it comprises means (67; 71, 83; 91; 51; 43) for laterally maintaining the adjacent longitudinal ends (19) of substantially all the fuel rods (3), which maintenance means are arranged at nodes of the substantially regular network, in that the maintenance means constitute means for longitudinally securing the adjacent longitudinal ends (19) of the fuel rods (3) relative to the terminal end-piece (7), and in that the end-piece comprises two components (29, 31) for longitudinally clamping between them the adjacent longitudinal ends (19) of the fuel rods (3).
2. End-piece according to claim 1, characterised in that the maintenance means comprise housings (67) for receiving the adjacent longitudinal ends (19) of the fuel rods (3).
3. End-piece according to claim 1 or 2, characterised in that one of the components constitutes an anti-debris filter (31).
4. End-piece according to any one of the preceding claims, characterised in that the longitudinal securing means comprise projections (71), to which rings (75) of the

adjacent longitudinal ends (19) of the fuel rods (3) are intended to be fitted.

5. End-piece according to any one of the preceding claims, characterised in that the longitudinal securing means comprise screws (43) which are intended to be engaged in the adjacent longitudinal ends (19) of the fuel rods (3).

6. End-piece according to any one of the preceding claims, characterised in that the longitudinal securing means are means for securing by means of snap-fitting (Figure 10).

7. End-piece according to any one of the preceding claims, characterised in that it constitutes a bottom end-piece and in that the adjacent longitudinal ends (19) are the lower ends of the fuel rods (3).

8. End-piece according to claim 7, characterised in that it comprises feet (25) for support on a lower plate of the core of the nuclear reactor.

9. Fuel assembly (1) for a nuclear reactor, the assembly (1) comprising fuel rods (3) and a skeleton (5) for supporting the fuel rods (3), the fuel rods (3) extending in a longitudinal direction (A) and being arranged at the nodes of a substantially regular network, the support skeleton (5) comprising two terminal end-pieces (7, 9) and elements (11) for connecting the terminal end-pieces, the fuel rods (3) being arranged longitudinally between the terminal end-pieces (7, 9), characterised in that at least one end-piece (7) is an end-piece according to any one of the preceding claims, in that the maintenance means constitute means for longitudinally securing the adjacent longitudinal ends (19) of the fuel rods (3) relative to the terminal end-piece (7),

and in that the end-piece (7) comprises two components (29, 31) which longitudinally clamp between them the adjacent longitudinal ends (19) of the fuel rods (3).

10. Assembly according to claim 9, characterised in that the maintenance means comprise housings (67) which receive the adjacent longitudinal ends (19) of the fuel rods (3).

11. Assembly according to claim 9 or 10, characterised in that the longitudinal securing means comprise projections (71) which are provided on the end-piece (7) and rings (75) which are provided at the adjacent longitudinal ends (19) of the fuel rods (3) and which are fitted to those projections (71).

12. Assembly according to claim 11, characterised in that the rings (75) comprise relief portions (79) for abutment against one of the components (29, 31).

13. Assembly according to claim 9, characterised in that the adjacent longitudinal ends (19) of the fuel rods (3) comprise widened feet (89) which are clamped between the two components (29, 31).

14. Assembly according to any one of claims 9 to 13, characterised in that the longitudinal securing means comprise screws (43) which abut the end-piece (7) and which are engaged in the adjacent longitudinal ends (19) of the fuel rods (3).

15. Assembly according to any one of claims 9 to 13, characterised in that the longitudinal securing means are means for securing by means of snap-fitting (Figure 10).